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INTRODUCTION

Developed by EDC to guide and support the collaborative self-assessment of principal preparation programs by school districts and their training providers, this edition of Quality Measures™ rubrics and evidence-based protocols reflects the evolution of indicators beginning with the seminal research of Linda Darling-Hammond et al. on exemplary preparation program practices in 2007.

Since that time, these tools have gone through a series of important revisions to keep pace with an ever-changing landscape of increased accountability for preparation programs' linkages to principal performance. They reflect feedback collected from a host of users from across the country, over the past decade.

Quality Measures™ indicators and rubrics are designed for use by school districts, preparation program providers, and policy makers as a central component of a focused program selfassessment and continuous improvement process. They are intentionally focused on program content and pedagogy, supervised clinical practice, candidate recruitment and selection, and program graduate outcomes related to knowledge, skills, and dispositions; market demand, and graduate performance as principals.

These indicators and rubric criteria are used to build a shared understanding of program quality and to guide team discussions and consideration of evidence that would support a rating of well developed. Ratings are then used to guide the design and implementation of strategic interventions as part of an ongoing continuous improvement process. The Wallace Foundation generously funds this edition of the Quality Measures™ Principal Preparation Program Self-Assessment Toolkit.

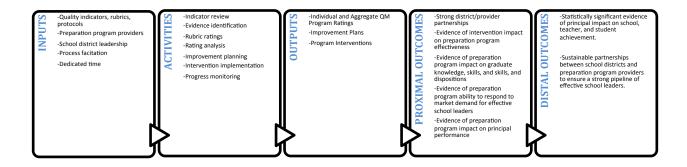


Figure 1: Quality Measures Logic Model

HOW THE TOOL WAS DEVELOPED

EDC researchers conducted a review of the literature to identify key documents that describe the characteristics of effective principal preparation programs. There is limited empirical research linking principal preparation programs to principal performance. While most of the research on partnerships is single case studies, we sought to identify literature that provides a broader evidence base drawn from multiple sources. We selected articles that described cross case analysis, literature reviews, and other synthesis pieces. An annotated bibliography is provided at the end of this toolkit. The documents collected through the literature review were analyzed to identify characteristics associated with effective programs and determine how consistently these characteristics were mentioned in the literature. These data were then used to construct the Quality Measures™ rubric indicators and continuum descriptions.

HOW TO USE THE TOOL

This tool is intended to provide a focus for discussions and analysis of evidence of core preparation program components by school districts and their principal preparation program providers. It can be used to guide the self-assessment of an existing program, or to support the development a new program. The conversations prompted through this process can help to strengthen the program by clarifying expectations and offering a venue for different partner perspectives. It can also assist in identifying where gaps exist as a focus for improvement.

Completing the assessment may take considerable time in order to allow for adequate sharing of different perspectives and consideration of different supporting evidence for each program component. Partners need time to reflect on how their program is working against a set of objective criteria.

The tool can be used at different stages in the program improvement process. In the beginning, it can be used to build a shared vision for preparation effectiveness and identify gaps using rubric criteria. It can then be used to guide the design and implementation of strategic interventions and monitor progress over the duration of the program. We recommend that the self-assessment process be integrated into a continuous improvement cycle that continually collects information on program effectiveness that is linked to graduate performance.

QUALITY	Beginning	Emerging	Developed	Well-Developed
INDICATORS	1	2	3	4
I. Includes required course content domains	Requires coursework in <i>few</i> of the following content domains: • Vision for learning • School culture • Instructional supervision • Management of resources and operations • Ethical practices, and • Political, social, economic, legal and cultural contexts.	Requires coursework in <i>some</i> of the following content domains: Vision for learning School culture Instructional supervision Management of resources and operations Ethical practices, and Political, social, economic, legal and cultural contexts.	Requires coursework in <i>most</i> of the following content domains: Vision for learning School culture Instructional supervision Management of resources and operations Ethical practices, and Political, social, economic, legal and cultural contexts.	Requires coursework in <i>all</i> of the following content domains: Vision for learning School culture Instructional supervision Management of resources and operations Ethical practices, and Political, social, economic, legal and cultural contexts.
II. Curriculum is logically and sequentially organized III. Incorporates project-based learning methods	Few required courses are logically and sequentially organized, and are not yet aligned to state and professional leadership standards. Few required courses include project-based learning methods as the comprehensive approach to instruction that includes adequate opportunities	Some of the required courses are logically and sequentially organized, and aligned to state and professional leadership standards. Some required courses incorporate project-based learning methods as the comprehensive approach to instruction that includes adequate opportunities	Most required courses are logically and sequentially organized, and aligned to state and professional leadership standards. Most required courses incorporate project-based learning methods as the comprehensive approach to instruction that includes adequate opportunities	All required courses are logically and sequentially organized, and aligned with state and professional leadership standards. All required courses incorporate project-based learning methods as the comprehensive approach to instruction that includes adequate opportunities
IV. Is linked to performance expectations for principals	for students to practice an array of skills in real school contexts. Few required courses link successful completion of coursework to current district performance expectations for school principals.	for students to practice an array of skills in real school contexts. Some of the required courses link successful completion of coursework to current district performance expectations for school principals.	for students to practice an array of skills in real school contexts. Most required courses link successful completion of coursework to current district performance expectations for school principals.	for students to practice an array of skills in real school contexts. All required courses link successful completion of coursework to current district performance expectations for school principals.
V. Includes formative and summative assessment measures	Few required courses implement well-defined formative and summative assessment measures for use by faculty, the candidate, and peers to evaluate candidate performance.	Some required courses implement well-defined formative and summative assessment measures for use by faculty, the candidate, and peers to evaluate candidate performance.	Most required courses implement well-defined formative and summative assessment measures for use by faculty, the candidate, and peers to evaluate candidate performance.	All required courses implement well-defined formative and summative assessment measures for use by faculty, the candidate, and peers to evaluate candidate performance.

Course Content and Pedagogy

QUALITY	Beginning	Emerging	Developed	Well-Developed
INDICATORS	1	2	3	4
I. Developmentally sequenced experiences	Few clinical practice experiences are developmentally sequenced to build upon each other and allow interns to develop, apply, and practice leadership skills in realworld clinical settings under the direct supervision of both university faculty and expert field practitioners.	Some clinical practice experiences are developmentally sequenced to build upon each other and allow interns to develop, apply, and practice leadership skills in realworld clinical settings under the direct supervision of both university faculty and expert field practitioners.	Most clinical practice experiences are developmentally sequenced to build upon each other and allow interns to develop, apply, and practice leadership skills in realworld clinical settings under the direct supervision of both university faculty and expert field practitioners.	All clinical practice experiences are developmentally sequenced to build upon each other and allow interns to develop, apply, and practice leadership skills in realworld clinical settings under the direct supervision of both university faculty and expert field practitioners.
II. Problem-based experiences linked to standards	Few clinical practice experiences include a comprehensive series of problem-based projects and activities that are linked to state standards and district performance expectations for principals.	Some clinical practice experiences include a comprehensive series of problem-based projects and activities that are linked to state standards and district performance expectations for principals.	Most clinical practice experiences include a comprehensive series of problem-based projects and activities that are linked to state standards and district performance expectations for principals.	All clinical practice experiences include a comprehensive series of problem-based projects and activities that are linked to state standards and district performance expectations for principals.
III. Coaching and performance feedback	Few clinical practice experiences provide interns with expert coaching and mentoring support that includes opportunities for intern to be observed and receive feedback from experts while practicing and developing their skills.	Some clinical practice experiences provide interns with expert coaching and mentoring support that includes opportunities for intern to be observed and receive feedback from experts while practicing and developing their skills.	Most clinical practice experiences provide interns with expert coaching and mentoring support that includes opportunities for intern to be observed and receive feedback from experts while practicing and developing their skills.	All clinical practice experiences provide interns with expert coaching and mentoring support that includes opportunities for intern to be observed and receive feedback from experts while practicing and developing their skills.
IV. Formative and summative assessments	Few clinical practice experiences provide formative and summative assessments of intern performance at scheduled intervals throughout the clinical practice experience.	Some clinical practice experiences provide formative and summative assessments of intern performance at scheduled intervals throughout the clinical practice experience.	Most clinical practice experiences provide formative and summative assessments of intern performance at scheduled intervals throughout the clinical practice experience.	All clinical practice experiences provide formative and summative assessments of intern performance at scheduled intervals throughout the clinical practice experience.
V. Opportunities to practice in multiple contexts	Few clinical practice experiences offer interns the opportunity to develop competencies in multiple grade level and demographic contexts.	Some clinical practice experiences offer interns the opportunity to develop competencies in multiple grade level and demographic contexts.	Most clinical practice experiences offer interns the opportunity to develop competencies in multiple grade level and demographic contexts.	All clinical practice experiences offer interns the opportunity to develop competencies in multiple grade level and demographic contexts.

Supervised Clinical Practice

QUALITY	Beginning	Emerging	Developed	Well-Developed
INDICATORS	1	2	3	4
I. Rigorous program admission standards	Few program admission standards include criteria for 1) nominating candidates, 2) screening applications, and 3) conducting and evaluating candidate interviews; and are aligned with school district, state, and national performance expectations for school leaders.	Some program admission standards include criteria for 1) nominating candidates, 2) screening applications, and 3) conducting and evaluating candidate interviews; and are aligned with school district, state, and national performance expectations for school leaders.	Most program admission standards include criteria for 1) nominating candidates, 2) screening applications, and 3) conducting and evaluating candidate interviews; and are aligned with school district, state, and national performance expectations for school leaders.	All program admission standards include criteria for 1) nominating candidates, 2) screening applications, and 3) conducting and evaluating candidate interviews; and are aligned with school district, state, and national performance expectations for school leaders.
II. Multi-dimensional approach to outreach and communication	Few criteria and processes are designed to recruit high potential candidates and are broadly communicated in multiple venues at the local, state, and national level to give the program high visibility.	Some criteria and processes are designed to recruit high potential candidates and are broadly communicated in multiple venues at the local, state, and national level to give the program high visibility.	Most criteria and processes are designed to recruit high potential candidates and are broadly communicated in multiple venues at the local, state, and national level to give the program high visibility.	All criteria and processes are designed to recruit high potential candidates and are broadly communicated in multiple venues at the local, state, and national level to give the program high visibility.
III. Valid measures for assessing candidate potential	Few measures for assessing applicant potential are valid, reliable, aligned with principal performance expectations and consistently used to make admission decisions.	Some measures for assessing applicant potential are valid, reliable, aligned with principal performance expectations and consistently used to make admission decisions.	Most measures for assessing applicant potential are valid, reliable, aligned with principal performance expectations and consistently used to make admission decisions.	All measures for assessing applicant potential are valid, reliable, aligned with principal performance expectations and consistently used to make admission decisions.
IV. Competitive recruitment incentives	Few incentives used to attract and retain highly qualified applicants are budgeted, responsive to applicant needs, and equitably distributed across the applicant pool.	Some incentives used to attract and retain highly qualified applicants are budgeted, responsive to applicant needs, and equitably distributed across the applicant pool.	Most incentives used to attract and retain highly qualified applicants are budgeted, responsive to applicant needs, and equitably distributed across the applicant pool.	All incentives used to attract and retain highly qualified applicants are budgeted, responsive to applicant needs, and equitably distributed across the applicant pool.

Candidate Recruitment and Selection

QUALITY	Beginning	Emerging	Developed	Well-Developed
INDICATORS	1	2	3	4
I. Vision for learning and commitment	Few program graduates demonstrate proficiency in their ability to implement a strategic vision for school wide equity and excellence that is grounded in a fundamental belief that all students can learn.	demonstrate proficiency in their ability to implement a strategic vision for school wide equity and excellence that is grounded in a fundamental belief that all students can learn.	Most program graduates demonstrate proficiency in their ability to implement a strategic vision for school wide equity and excellence that is grounded in a fundamental belief that all students can learn.	All program graduates demonstrate proficiency in their ability to implement a strategic vision for school wide equity and excellence that is grounded in a fundamental belief that all students can learn.
II. Strategic management and development of human capital	Few program graduates demonstrate proficiency in creating a learner-centered environment and the essential conditions for adult learning and engagement in the school improvement process.	Some program graduates demonstrate proficiency in creating a learner-centered environment and the essential conditions for adult learning and engagement in the school improvement process.	Most program graduates demonstrate proficiency in creating a learner-centered environment and the essential conditions for adult learning and engagement in the school improvement process.	All program graduates demonstrate proficiency in creating a learner-centered environment and the essential conditions for adult learning and engagement in the school improvement process.
III. Leadership and supervision of quality of instruction	Few program graduates demonstrate proficiency in planning, implementing, and assessing the quality and effectiveness of the curriculum, instruction, and assessment program of a school.	Some program graduates demonstrate proficiency in planning, implementing, and assessing the quality and effectiveness of the curriculum, instruction, and assessment program of a school.	Most program graduates demonstrate proficiency in planning, implementing, and assessing the quality and effectiveness of the curriculum, instruction, and assessment program of a school.	All program graduates demonstrate proficiency in planning, implementing, and assessing the quality and effectiveness of the curriculum, instruction, and assessment program of a school.
IV. Management of systems and school operations	Few program graduates demonstrate proficiency in executing policies and procedures and aligning fiscal resources (time, space, and money) to support the vision for teaching and learning.	Some program graduates demonstrate proficiency in executing policies and procedures and aligning fiscal resources (time, space, and money) to support the vision for teaching and learning.	Most program graduates demonstrate proficiency in executing policies and procedures and aligning fiscal resources (time, space, and money) to support the vision for teaching and learning.	All program graduates demonstrate proficiency in executing policies and procedures and aligning fiscal resources (time, space, and money) to support the vision for teaching and learning.
V. Parent and community relationships	Few program graduates demonstrate proficiency in developing relationships with parents and a wide range of stakeholders and policymakers to identify, respond to, and influence issues, trends, and potential changes that affect the context and conduct of education.	Some program graduates demonstrate proficiency in developing relationships with parents and a wide range of stakeholders and policymakers to identify, respond to, and influence issues, trends, and potential changes that affect the context and conduct of education.	Most program graduates demonstrate proficiency in developing relationships with parents and a wide range of stakeholders and policymakers to identify, respond to, and influence issues, trends, and potential changes that affect the context and conduct of education.	All program graduates demonstrate proficiency in developing relationships with parents and a wide range of stakeholders and policymakers to identify, respond to, and influence issues, trends, and potential changes that affect the context and conduct of education.

Graduate Performance Outcome I: Proficiency upon Program Completion

QUALITY	Beginning	Emerging	Developed	Well-Developed
INDICATORS	1	2	3	4
I. Graduates meeting state certification requirements	Few program graduates meet state certification requirements for school leaders as measured by state administered assessments.	state certification requirements for school leaders as measured by state administered assessments.	Most program graduates meet state certification requirements for school leaders as measured by state administered assessments.	All program graduates meet state certification requirements for school leaders as measured by state administered assessments.
II. Graduates meeting district eligibility criteria for hiring	Few program graduates meet local school district hiring criteria for the position of principal or assistant principal and qualify for admission to district eligible applicant pool.	Some program graduates meet local school district hiring criteria for the position of principal or assistant principal and qualify for admission to district eligible applicant pool.	Most program graduates meet local school district hiring criteria for the position of principal or assistant principal and qualify for admission to district eligible applicant pool.	All program graduates meet local school district hiring criteria for the position of principal or assistant principal and qualify for admission to district eligible applicant pool.
III. Graduates hired as principals or assistant principals	Few program graduates are hired by school districts to fill vacancies for principal or assistant principal positions based on their demonstrated competencies.	Some program graduates are hired by school districts to fill vacancies for principal or assistant principal positions based on their demonstrated competencies.	Most program graduates are hired by school districts to fill vacancies for principal or assistant principal positions based on their demonstrated competencies.	All program graduates are hired by school districts to fill vacancies for principal or assistant principal positions based on their demonstrated competencies.
IV. Graduates qualified for placement in chronically low performing schools	Few program graduates are qualified for placement as principals or assistant principals in chronically low performing schools based on their demonstrated competencies.	Some program graduates are qualified for placement as principals or assistant principals in chronically low performing schools based on their demonstrated competencies.	Most program graduates are qualified for placement as principals or assistant principals in chronically low performing schools based on their demonstrated competencies.	All program graduates are qualified for placement as principals or assistant principals in chronically low performing schools based on their demonstrated competencies.
V. Graduates retained in leadership positions for three or more years	Few program graduates hired by school districts as principals or assistant principals remain in the same position for at least three years (unless promoted or assigned to a new leadership position as a result of strong performance).	Some program graduates hired by school districts as principals or assistant principals remain in the same position for at least three years (unless promoted or assigned to a new leadership position as a result of strong performance).	Most program graduates hired by school districts as principals or assistant principals remain in the same position for at least three years (unless promoted or assigned to a new leadership position as a result of strong performance).	All program graduates hired by school districts as principals or assistant principals remain in the same position for at least three years (unless promoted or assigned to a new leadership position as a result of strong performance).

Graduate Performance Outcome II: Response to Market Demand for Principals

QUALITY	Beginning	Emerging	Developed	Well-Developed
INDICATORS	1	2	3	4
I. Evidence of graduate impact on <u>SCHOOL</u> performance	Few program graduates articulate a strategic vision for learning that guides school improvement efforts and is embraced by the entire school community, within the first three years as principal or assistant principal.	Some program graduates articulate a strategic vision for learning that guides school improvement efforts and is embraced by the entire school community, within the first three years as principal or assistant principal.	Most program graduates articulate a strategic vision for learning that guides school improvement efforts and is embraced by the entire school community, within the first three years as principal or assistant principal.	All program graduates articulate a strategic vision for learning that guides school improvement efforts and is embraced by the entire school community, within the first three years as principal or assistant principal.
II. Evidence of graduate impact on <u>TEACHER</u> performance	Few program graduates establish the essential conditions for adult learning and engage all teachers in a process to improve the quality and effectiveness of the instructional program, within the first three years as principal or assistant principal.	Some program graduates establish the essential conditions for adult learning and engage all teachers in a process to improve the quality and effectiveness of the instructional program, within the first three years as principal or assistant principal.	Most program graduates establish the essential conditions for adult learning and engage all teachers in a process to improve the quality and effectiveness of the instructional program, within the first three years as principal or assistant principal.	All program graduates establish the essential conditions for adult learning and engage all teachers in a process to improve the quality and effectiveness of the instructional program, within the first three years as principal or assistant principal.
III. Evidence of graduate impact on <u>STUDENT</u> performance	Few program graduates create a safe, healthy, and orderly learning environment that results in increased time on task, reductions in disciplinary referrals, and increases in student achievement, within their first three years as principal or assistant principal.	Some program graduates create a safe, healthy, and orderly learning environment that results in increased time on task, reductions in disciplinary referrals, and increases in student achievement, within their first three years as principal or assistant principal.	Most program graduates create a safe, healthy, and orderly learning environment that results in increased time on task, reductions in disciplinary referrals, and increases in student achievement, within their first three years as principal or assistant principal.	All program graduates create a safe, healthy, and orderly learning environment that results in increased time on task, reductions in disciplinary referrals, and increases in student achievement, within their first three years as principal or assistant principal.

Graduate Performance Outcome III: Impact on School, Teacher, Student Performance

Annotated Bibliography

Carlson, D., Borman, G. D., & Robinson, M. (2011). Reform on Reading and Mathematics Achievement: A Multistate District-Level Cluster Randomized Trial of the Impact of Data-Driven. *Educational Evaluation and Policy Analysis*, 33(3), 378-398.

Using a cluster-randomized design, this study assessed the impact of a data-driven reform initiative implemented by the Johns Hopkins Center for Data-Driven Reform in Education (CDDRE). Over 500 schools in 59 school districts and seven states participated in the study and the majority of the districts and schools in the sample were low performing. The intervention included quarterly benchmark assessments, data reviews, training in leadership and data interpretation, provision of reviews of research on effective programs and practices, and assistance in selecting and implementing proven programs. Relative to the control condition, districts implementing the reform experienced statistically significant improvements in mathematics achievement, and positive effects in reading achievement, although they were not statistically significant.

Clark, D., Martorell, P., & Rockoff, J. (2009). School Principals and School Performance. CALDER Working Paper 38. Center for Analysis of Longitudinal Data in Education Research.

This study uses data from the New York City Department of Education to examine the relationship between principal characteristics and school performance, as measured by student standardized test scores and other outcomes. The authors find that there is a positive relationship between principal experience and school performance, especially over the first few years of principal experience. They find little evidence of a relationship between school performance and principal education and work experience prior to becoming a principal.

Corcoran, S.P., Schwartz, A.E., & Weinstein, M. (2012). Training Your Own: The Impact of New York City's Aspiring Principals Program on Student Achievement. *Educational Evaluation and Policy Analysis*, 34(2), 232-253.

This evaluation of the New York City Leadership Academy's Aspiring Principal Program (APP) examined differences between APP principals and principals prepared by other programs after 3 or more years. The study found that the program succeeded in its goal to deliver principals to low performing schools; however, APP principals are 3-6 percentage points more likely to exit or change schools than other new principals working in similar schools. The study also found that schools led by APP graduates performed about as well as schools led by other new principals. The gap between APP and non-APP schools widened slightly in mathematics and was constant in English language arts.

Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2007). Preparing school leaders for a changing world: Lessons from exemplary leadership development programs. Stanford, CA: Stanford University, Stanford Educational Leadership Institute.

This study examines eight exemplary pre- and in-service leadership programs to identify the qualities and outcomes of effective programs and determine how state, district, and institutional policies influence these programs. Researchers gathered data from interviews with program staff, program participants and graduates, and other stakeholders; surveys of program participants and graduates compared to a national random sample; and observations of program graduates in their jobs as principals. They also analyzed data on school practices and student achievement. The authors found that compared to a national random sample of principals, graduates of exemplary programs were more likely to engage in effective leadership practices, felt better prepared for the principalship, and had more positive attitudes about the job.

Day, C. & Sammons, P. (2013). Successful leadership: a review of the international literature. CfBT Education Trust. Available from: http://cdn.cfbt.com/~/media/cfbtcorporate/files/research/2013/r-successful-leadership-2013.pdf

This review of international literature focuses on the nature of school leadership and its relationship to school improvement. It pays particular attention to the concepts of transformational leadership, instructional and pedagogical leadership, and distributed leadership. The authors conclude that while there is particular evidence that instructional and pedagogical leadership promote better student outcomes, a combination of leadership strategies can be most beneficial to school success.

Hallinger, P. & Heck, R. (2010). Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning. *School leadership and management*, 30(2), 95-110.

This study assessed the effects of collaborative leadership on school improvement capacity and student learning in a sample of 198 primary schools over four years. The analysis tested the efficacy of four conceptual models of school leadership effects on student learning. The study provided strong evidence supporting a reciprocal effects model, in which leadership and school improvement capacity have a mutually-reinforcing relationship that contribute to growth in student learning.

Heck, R. H., & Hallinger, P. (2005). The study of educational leadership and management: Where does the field stand today? *Educational Management, Administration & Leadership,* 33(2), 229–244.

This article discusses the field of research on educational leadership and management between 1990 and 2005. The authors comment on the state of the research, including conceptual and methodological developments. They discuss progress made in the literature and ways in which research has changed directions. They also discuss where they see research in educational leadership and management heading in the future.

LaPointe, M., Davis, S., & Cohen, C. (2007). School leadership study: Developing successful principals (Case study series: Principal preparation at Delta State University — A bold strategy to improve practice). Stanford, CA: Stanford University, Stanford Educational Leadership Institute.

The School Leadership Study analyzes eight exemplary preparation and in-service professional development programs for principals. This paper is a case study of one of these selected programs – Delta State University's principal preparation program. The report describes the context and need for the program, the ways in which the state supports it, distinguishing features of the program, program costs and financing, and program outcomes. The following six defining features of the program are described: rigorous recruitment and selection process; development of core values and skills for instructional leadership; cultivation of self-reflection; problem-based learning experiences that connect to theory; developing skills for organizational change and renewal; developing strong partnerships with regional school districts.

Leithwood, K. (2006). Teacher working conditions that matter: Evidence for change. Toronto: Elementary Teachers' Federation of Ontario.

This literature review summarizes how teachers' working conditions influence the performance of teachers and the learning of students. It discusses the effects of eight internal states on teacher performance and/or student learning and how working conditions influence these internal states. The eight internal states discussed are: individual teacher efficacy, collective teacher efficacy, teacher job satisfaction, organizational commitment, stress/burnout, morale, engagement or disengagement from the school or profession, and pedagogical content knowledge. The report also discusses some of the main causes or sources of teachers' working conditions, looking specifically at classroom, school, and district level working conditions; principal leadership; and the broader social and political context. The author discusses the evidence that exists about these working conditions, where they come from, their effect, and what we do about them.

Leithwood, K., Louis, K.S., Anderson, S., & Wahlstrom, K.L. (2004). How leadership influences student learning: A review of research for the Learning from Leadership Project. New York, NY: The Wallace Foundation.

This is the first in a series of reports commissioned by The Wallace Foundation that investigate the role of leadership in improving learning. The authors reviewed existing evidence to identify the effects of successful leadership on student learning and determine how it exerts these effects. The review finds that leadership is second only to classroom instruction among all school-related factors that contribute to student learning. These effects are mainly indirect, through their influence on people and features of the organization. The authors also identify three sets of "basic" leadership practices that are common, but not sufficient, to effective leadership: setting directions, developing people, and redesigning the organization.

Louis, K.S., Leithwood, K., Wahlstrom, K.L., & Anderson, S.E. (2010). Learning from leadership: Investigating the links to improved student learning. Minnesota, MN: The Wallace Foundation.

This is the largest in-depth study of education leadership, drawing on surveys, interviews, and observations in 180 schools and 43 districts in nine states. The study examines leadership at the school, district, and state levels. Among the study's findings is that high performing schools benefit from "collective leadership" that includes teachers and other stakeholders in decision-making. The study also investigates the effects of shared and distributed leadership and identifies leadership practices considered instructionally helpful by high performing teachers and principals.

Martorell, F., Heaton, P., Gates, S.M., & Hamilton, L.S. (2010). Preliminary Findings from the New Leaders for New Schools Evaluation. Washington, DC: RAND Education.

This paper provides a report of preliminary findings about the impact New Leaders principals have on student achievement, as measured by math and reading standardized test scores. The study uses longitudinal, student-level data from six cities where New Leaders principals have been placed by the 2007-2008 school year. The analysis find a small negative relationship between achievement and attending a school led by a first year New Leader, but a positive association once the New Leader is in his or her second year and beyond. The paper also describes the methodological challenges related to the non-random assignment of New Leaders principals to schools and discusses the statistical techniques used to address these challenges.

Murphy, J., Elliot, S., Goldring, E., & Porter, A (2007). Leadership for Learning: A Research-Based Model and Taxonomy of Behaviors. *Journal of School Leadership and Management*. 27(2), 179-201.

This article examines the research on high performing principals and superintendents and highly effective schools and school districts and summarizes it within a leadership for learning framework. The research is organized and discussed within eight dimensions of the framework: vision for learning, instructional program, curricular program, assessment program, communities of learning, resource acquisition and use, organizational culture, and advocacy. The paper provides a foundation for the Vanderbilt Assessment of Leadership in Education (VAL-Ed).

New Leaders for New Schools (2009). Principal effectiveness: A new principalship to drive student achievement, teacher effectiveness, and school turnarounds. New York, NY: NLNS.

This report describes the Urban Excellence Framework (UEF), developed by New Leaders for New Schools to describe the key leadership actions they have found to be critical to driving student learning gains and teacher effectiveness. The framework is organized around five categories of a school leader's work, each of which are described in detail: learning and teaching, aligned staff, school culture, operations and systems, and personal leadership. The report also identifies stages of school development, describing how a school's practices evolve over time for each key lever included in the UEF. The report concludes with separate policy recommendations for states, school systems, and philanthropic funders.

Orr, M. T., & Orphanos, S. (2013). Learning Leadership Matters: The Influence of Innovative School Leadership Preparation on Teachers' Experiences and Outcomes. *Educational Management Administration & Leadership 41*(6), 1-21.

This study examined the influence of leadership preparation on leadership practices and teachers' job collaboration, leadership and satisfaction. Survey data were used to compare graduates of exemplary leadership preparation programs and teachers in their schools to a nationally representative sample of school principals and teachers in their schools. The authors found that innovative leadership preparation has a positive direct effect on principal leadership practices and a positive indirect effect on teacher collaboration and satisfaction.

Orr, M. T., & Orphanos, S. (2011). How graduate level preparation influences the effectiveness of school leaders: A comparison of the outcomes of exemplary and conventional leadership preparation programs for principals. *Educational Administration Quarterly*, 47(1), 18–70.

This study explored the influence of exemplary leadership preparation on what principals learn about leadership, their use of effective leadership practices, and how their practices influence

school improvement and the school's learning climate. 65 principals who had graduated from one of four selected exemplary leadership preparation programs were compared to a national sample of 111 principals using survey research. The authors found that participation in an exemplary leadership preparation program was associated with learning about effective leadership and engaging in these practices. Exemplary leadership preparation also had a positive influence on school improvement progress and school effectiveness climate.

Quint, J.C., Akey, T.M., Rappaport, S., & Willner, C.J. (2007). Instructional Leadership, Teaching Quality, and Student Achievement: Suggestive Evidence from Three Urban School Districts. New York, NY: MDRC.

This study examines the Institute for Learning's (IFL) theory of action about the relationships between professional development for principals focused on instruction and principles of learning and improved teacher practice and student performance. Although there are limitations in the study design, which uses data from 49 elementary schools in three districts working with IFL, the findings suggest statistically significant associations connecting each step in the theory of action. Principals who received more professional development were more involved in the professional development of their teachers. Teachers who received more professional development had higher measures of instructional quality. Schools that had higher instructional quality had students with higher academic performance.

Robinson, V., Hohepa, M. & Lloyd, C. (2009). School leadership and student outcomes: Identifying what works and why. Best Evidence Syntheses Iteration (BES). New Zealand: Ministry of Education. Available from:

http://www.educationcounts.govt.nz/publications/series/2515/60169/60170

This report, commissioned by the New Zealand Ministry of Education, is one of a series of "Best Evidence Syntheses Iterations (BES)" that analyze and describe a body of research evidence to support knowledge building across research, policy and practice. This BES examines the impact of various types of leadership on student outcomes through two meta-analyses of research on leadership. One meta-analysis compared the impact of transformational and pedagogical leadership, finding pedagogical leadership to have nearly four times the impact of transformational leadership. A second meta-analysis examined the impact of student outcomes on five leadership dimensions identified by the research: (1) Establishing goals and expectations; (2) resourcing strategically; (3) planning, coordinating, and evaluating teaching and the curriculum; (4) promoting and participating in teacher learning and development; and (5) ensuring an orderly and supportive environment. The effect size of the dimension 4 is more than double the size of any other dimension.

Spillane, J.P. (2006). Distributed leadership. San Francisco, CA: Jossey-Bass.

This book discusses what it means to distribute leadership among an interactive web of people in a school within a particular situation. The author distinguishes his perspective of distributed leadership from other views of leadership such as shared leadership and focuses on leadership practice and the interactions between leaders, followers, and their situation rather than the actions of a particular leader. The book provides a summary of current research and examples of the ideas in practice.

Tuttle, C.C., Gill, B., Gleason, P., Knechtel, V., Nichols-Barrer, I., & Resch, A. (2013). KIPP Middle Schools: Impacts on Achievement and Other Outcomes. Final Report. Washington, DC: Mathematica Policy Research.

This national evaluation report uses experimental and quasi-experimental methods to assess the impact of attending a KIPP middle school. The study examines academic achievement in 43 KIPP middle schools based on math, reading, science, and social studies state test scores; student performance on a nationally norm-referenced test that includes items assessing higher-order thinking; and survey-based measures of student attitudes and behavior. The impact of KIPP on student achievement is consistently positive across all four subjects, for all four years, and for all measureable subgroups. The average magnitude of these effects is substantial, with KIPP producing additional learning growth in these subjects ranging from 8 to 14 months after three years. Similar impacts are found on the norm-referenced test.

Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, 10(12).

This study investigates the relationship between student academic achievement and teacher classroom practices, and other aspects of teaching such as the professional development teachers receive and teacher background characteristics. The authors analyze data from the National Assessment of Educational Progress (NAEP) database, focusing on 7,146 eighth graders who took the 1996 assessment in mathematics and their mathematics teachers. The study finds that classroom practices have a significant effect on student achievement. When added to the other aspects of teaching studied, the effects of classroom practice are at least as strong as the effects of student background.